

Title (en)
Emergency locking reels for belts.

Title (de)
Gurtaufroller mit Notverriegelung.

Title (fr)
Enrouleurs à verrouillage d'urgence pour ceintures.

Publication
EP 0093605 A2 19831109 (EN)

Application
EP 83302467 A 19830429

Priority
• AU PF384882 A 19820504
• AU PF720382 A 19821209

Abstract (en)
An emergency locking reel for a safety belt and being of the kind having a frame (1) which is securable to a support, a spool (3) rotatably mounted on that frame (1), and locking means operable to prevent rotation of that spool in a belt unwinding direction. The locking means comprises a toothed ring (19) secured to the frame (1) and a pawl (20) rotatable with the spool (3) and movable relative thereto to engage the ring (19). According to the invention, an inertia plate (64) is provided separate from the pawl (20) and is mounted on the spool spindle (8) for limited relative rotation therewith and carries a detent (66) which responds to relative rotation between the wheel (29) and inertia plate (64) to stop rotation of the wheel (29) and thereby cause the pawl (20) to engage the ring (19). A spring (74) resists that relative rotation between the wheel (29) and inertia plate (64). The housing (5) for the locking means (19,20) is symmetrical about a plane (63) which contains the spindle axis (25) and a sensor (49) responsive to vehicle deceleration is also located on that plane (63). The sensor (49) is securable to the housing (5) in any of a plurality of positions without disturbing the aforementioned symmetry. Furthermore, each tooth (22) of the locking ring (19) is symmetrical about a plane (24) containing the spindle axis (25). An end plate (17) of the housing (5) has, as integral parts, a bearing (14) for the spindle (8) and locating means (61,56) for the locking ring (19) and sensor (49) respectively, thereby simplifying assembly of the reel. A wedge-type retainer (95) secures an end of the belt (92) to the reel by locating in a slot (91) of the spool (3) and clamping the belt (92) in three separate zones.

IPC 1-7
B60R 21/10

IPC 8 full level
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IPC 8 main group level
A62B (2006.01)

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